### U11A-45: Hourly RINEX

GPS Data Service Is

Enabled by a Lightweight,

Configurable Data

Handling System

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and Space Administration, was carried out by the Jet Propulsion under a contract with the National Aeronautics The research described in this poster Laboratory, California Institute of Technology,

### JPL Global GPS Network

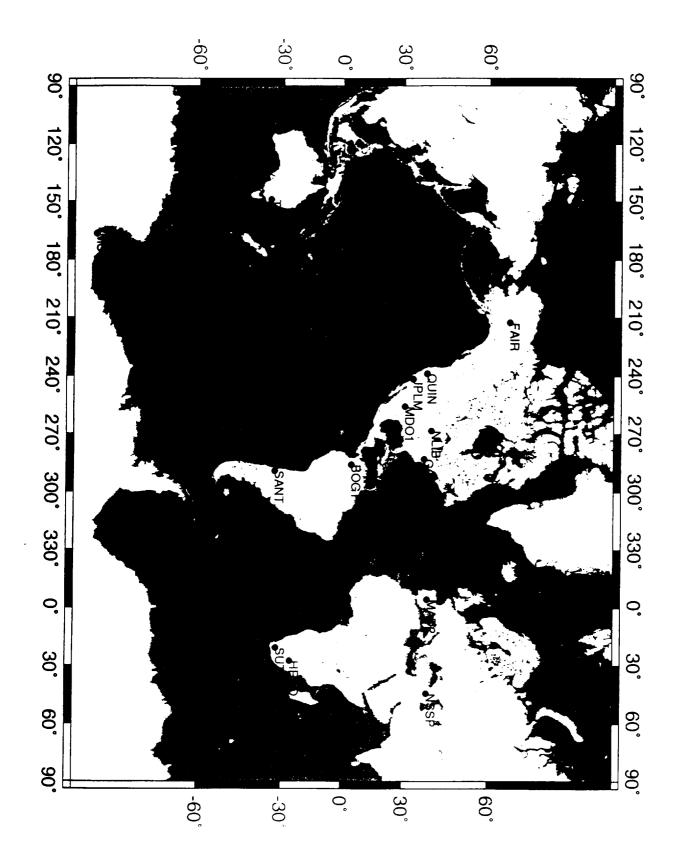
data are automatically uploaded from the operating GPS ground stations for NASA, many in conjunction with remote stations, processed, and international and regional agencies. The 55 permanent, continuously JPL currently operates more than reliability. distributed, with a high degree of

### JPL Global GPS Network

daily basis; however, some sites (detailed below) now provide data to JPL hourly. Historically, data collection has been on a

hourly subnetwork, with approximately 90% typical on-time performance. Data is Dynamics Data Information System distributed to users via the Crustal ~30 global NASA/JPL sites consitute the

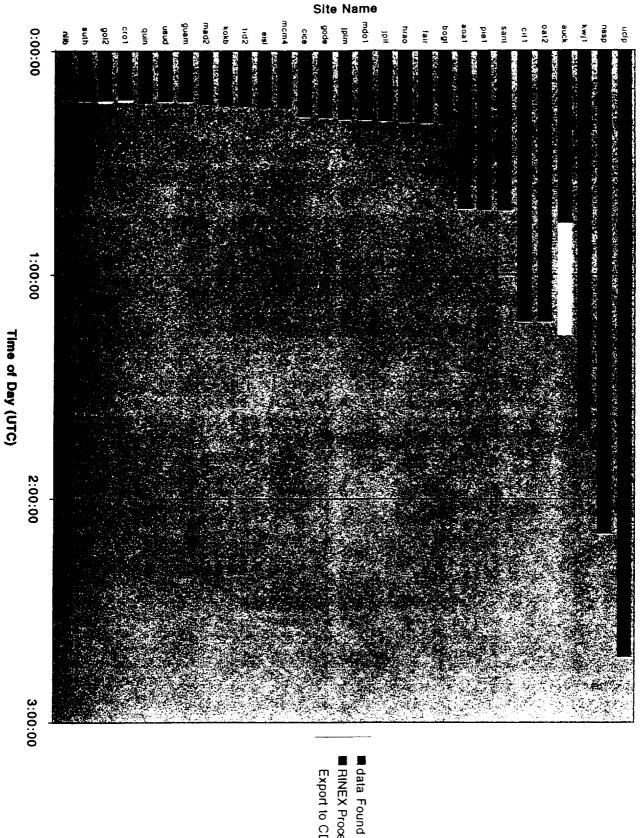
### JPL Hourly RINEX Subnetwork



## **GNRT** Quick Data Processing

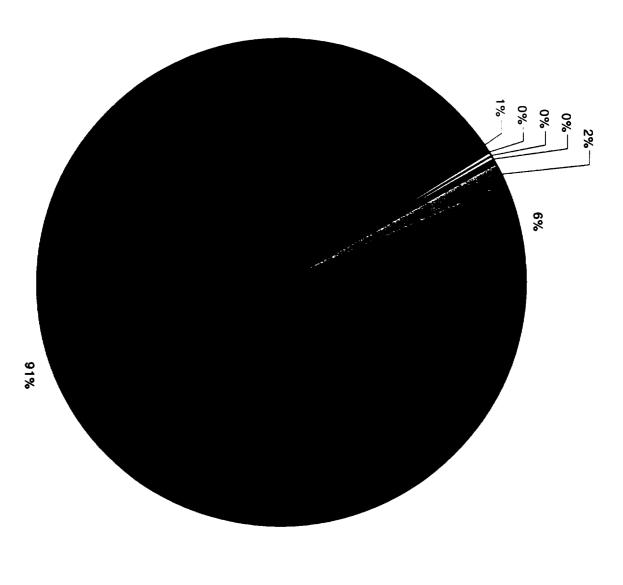
- Generalized Near Real Time (GNRT) system written in Perl under unix is configurable to handle any type of processing
- Operationally handles data Data-driven system initiates Time global subnetwork, promptly hourly RINEX files generating and exporting daily and uploaded hourly from Near Real
- Total system under 1000 lines of processing within seconds of import

code



■ RINEX Processing Export to CDDIS

#### Hourly GPS Data Processing d262-268, y1998



□5 or more hours late

more than a day late

☐2 hours late ☐3 hours late

■ within the hour
■ 1 hour late

4 hours late

## Hourly GPS data applications

- JPL since 08/1996
- Ground support to low-earth orbiter etc. expected early 1999 missions such as CHAMP, GRACE,
- Hourly global orbit and clock JPL's Analysis Center calculation prototype under test at

# For Further Information, Contact:

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- Carey Noll, noll@cddis.gsfc.nasa.gov for data availability questions